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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,392	07/03/2003	Patrick Claus	CLAUS1	3191
7590 11/03/2005 BROWDY AND NEIMARK, P.L.L.C. 624 Ninth Street, N.W. Washington, DC 20001			EXAMINER BENSON, WALTER	
			ART UNIT 2858	PAPER NUMBER

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/612,392	CLAUS, PATRICK	
	Examiner	Art Unit	
	Walter Benson	2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 12 and 15-17 is/are rejected.
- 7) ☒ Claim(s) 10 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Amendment A, received on 8/11/05 has been entered into record. In this amendment claim 14 was cancelled.
2. Claims 1-13 and 15-17 are now pending.

Claim Objections

3. Claims 1-13 and 15-17 are objected to because of the following informalities:
 - a. Usually the structure of the claim will contain:
 - 1) Preamble section;
 - 2) Body section; and
 - 3) transitional section.

Claims 1-13 and 15-17 contains to many transitional words without clearly providing the steps for each respective claimed element. It is difficult to judge where the preamble ends and elements and respective function begin.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 6, 8, 9, 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nacken (DE Patent Specification No. 267,462 and Nacken hereinafter) in view of Kranbuehl (US Patent No. 4,710,550 and Kranbuehl hereinafter).

3. As to claims 1, 6, 8, 9, 12, and 15, Nacken discloses an apparatus for distinguishing gemstones substantially as claimed, comprising:

at least a part of a gemstone that is to be qualified is placed in the electrical field of a capacitor [claims 1, 6, 8, 9, 12, 15] (col. 1 line 43 and col. 2 line 1);

whereby the electrical capacity of this capacitor is measured and compared to a reference capacity of this capacitor when a reference material (col. 1, lines 9-12) is placed in the electrical field [1, 6, 8, 9, 12, 15] (col. 1, lines 38-40);

whereby the gemstone is qualified as a gemstone with electrical conductivity when the measured capacity of the capacitor, which comprises the part of the gemstone, is larger than the reference capacity [claims 1, 6, 8, 9, 12, 15] (col. 2, lines 46-51).

provided with read out unit [claim 12] (col. 2, lines 44-46).

Art Unit: 2858

Nacken did not expressly disclose;

where the field is electrical stray field.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Nacken, as evidenced by

Kranbuehl discloses a capacitance probe to monitor the characteristics of a medium having:

where the field is electrical stray field [claims 1, 6, 8, 9, 12, 15] (col. 3, lines 32-36).

Given the teaching of Kranbuehl, a person having ordinary skill in the art at the time of the invention would have readily recognized the desirability and advantages of modifying Nacken by employing the well known or conventional features of capacitive sensors, such as disclosed by Kranbuehl in order to efficiently determine the relative capacitance of the electrically conductive material proximity to the probe.

4. Claims 2-5, 7, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nacken in view of Kranbuehl as applied to claims 1 and 12, and further in view in view of MacLean et al. (US Patent No. 3,864,626 and MacLean hereinafter).

Although system disclosed by Nacken in view of Kranbuehl shows substantial features of the claimed invention (discussed in the paragraphs above), it fails to disclose:

before the reference capacity is measured, a reference material is used with a dielectric constant which is larger than that of the gemstone (i.e carbon fiber) to be qualified, which is preferably at least equal to that of reference material [claims 2, 4, 5, 7, 16, 17];

before said reference capacity is measured, a reference material is used with a relative

Art Unit: 2858

dielectric constant which is larger than 9.7 [claim 3].

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Nacken in view of Kranbuehl, as evidenced by MacLean.

MacLean discloses a method and apparatus for non-destructivity evaluating physical properties of materials having:

before the reference capacity is measured, a reference material is used with a dielectric constant which is larger than that of the gemstone (i.e, carbon fiber) to be qualified, which is preferably at least equal to that of reference material [claims 1, 6, 8, 9, 12, 15] (col. 5, lines 10-23) to provide for quality control;

before said reference capacity is measured, a reference material is used with a relative dielectric constant which is larger than 9.7 [claim 3] (col. 4, lines 62-67).

Given the teaching of MacLean, a person having ordinary skill in the art at the time of the invention would have readily recognized the desirability and advantages of modifying Nacken in view of Kranbuehl by employing the well known or conventional features of capacitive sensors, such as disclosed by Maclean in order to efficiently determine the relative capacitance of the electrically conductive material and for the purposes discussed above.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nacken in view of Kranbuehl as applied to claim 1 and further in view in view of Diamond. (US Patent No. 4,474,185 and Diamond hereinafter).

Art Unit: 2858

Although system disclosed by Nacken in view of Kranbuehl shows substantial features of the claimed invention (discussed in the paragraphs above), it fails to disclose:

Where the capacitor is provided with a shield in order to prevent its capacity from being influenced by electrically conductive parts of a jewel in which the gemstone to be qualified is set.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Nacken in view of Kranbuehl, as evidenced by MacLean.

Diamond discloses capacitance type motion detector having:

Where the capacitor is provided with a shield in order to prevent its capacity from being influenced by electrically conductive parts of a jewel in which the gemstone to be qualified is set (col. 4, lines 34-39).

Given the teaching of Diamond, a person having ordinary skill in the art at the time of the invention would have readily recognized the desirability and advantages of modifying Nacken in view of Kranbuehl by employing the well known or conventional features of capacitive sensors, such as disclosed by Diamond in order to efficiently determine the relative capacitance of the material and minimize the external interference.

Allowable Subject Matter

6. Claims 11 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base

Art Unit: 2858

claim and any intervening claims. The prior art of record fails to teach in combination as claimed an apparatus and method for measuring gemstones where a diamond is used as the reference material.

Response to Arguments

7. Applicant's arguments with respect to claims 1-4, filed 8/11/05, have been considered but are moot in view of the new ground(s) of rejection.

8. In the remark the applicant argues in substance that:

(1) Nacken contains no disclosure of the use of the stray field of a capacitor.

9. Examiner respectfully traverse applicants remarks:

As to point (1), (see paragraphs above), Nacken in view of Kanbuehl does disclose where the field is electrical stray field (col. 3, lines 32-36).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter Benson whose telephone number is (571) 272-2227. The examiner can normally be reached on Mon to Fri 6:30 AM to 4:00 PM.

Art Unit: 2858

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Walter Benson
Patent Examiner

October 27, 2005